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**SMART & BIGGAR**

*Intellectual Property & Technology Law*

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P.O. Box 2999, Station D  
55 Metcalfe Street, Suite 900  
Ottawa, Canada K1P 5Y6

**Page 1 of:** 20

**Attention:** Group Art Unit 2616  
Examiner Jason E. Mattis

Tel.: (613) 232-2486  
Fax: (613) 232-8440

**From:** SMART & BIGGAR

**Your file no.:** 10/038,915

**Date:** March 15, 2007

**Reply to Ottawa file no.:** 71493-1044 /jas

**Time:**

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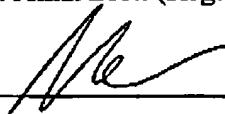
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R. Allan Brett (Reg. No. 40,476)

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MAR 15 2007

## AMENDMENT TRANSMITTAL LETTER (Large Entity)

Applicant(s): MA, Jianglei et al.

Docket No.

71493-1044 /jas

| Application No. | Filing Date     | Examiner         | Customer No. | Group Art Unit | Confirmation No. |
|-----------------|-----------------|------------------|--------------|----------------|------------------|
| 10/038,915      | January 8, 2002 | MATTIS, Jason E. | 07380        | 2616           | 1308             |

Invention: SYSTEM ACCESS AND SYNCHRONIZATION METHODS FOR MIMO OFDM COMMUNICATIONS SYSTEMS AND PHYSICAL LAYER PACKET AND PREAMBLE DESIGN

COMMISSIONER FOR PATENTS:

Transmitted herewith is an amendment in the above-identified application.

The fee has been calculated and is transmitted as shown below.

## CLAIMS AS AMENDED

|  | CLAIMS REMAINING<br>AFTER AMENDMENT | HIGHEST #<br>PREV. PAID FOR | NUMBER EXTRA<br>CLAIMS PRESENT | RATE       | ADDITIONAL<br>FEE |
|--|-------------------------------------|-----------------------------|--------------------------------|------------|-------------------|
| TOTAL CLAIMS   | 25                                  | 56 =                        | 0                              | x \$50.00  | \$0.00            |
| INDEP. CLAIMS  | 3                                   | 8 =                         | 0                              | x \$200.00 | \$0.00            |
| Multiple Dependent Claims (check if applicable) <input type="checkbox"/> |                                     |                             |                                |            | \$0.00            |
| TOTAL ADDITIONAL FEE FOR THIS AMENDMENT                                  |                                     |                             |                                |            | \$0.00            |

No additional fee is required for amendment.  
 Please charge Deposit Account No. \_\_\_\_\_ in the amount of \_\_\_\_\_  
 A check in the amount of \_\_\_\_\_ to cover the filing fee is enclosed.  
 The Director is hereby authorized to charge payment of the following fees associated with this communication or credit any overpayment to Deposit Account 19-2550  
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 Any patent application processing fees under 37 CFR 1.17.  
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Dated: March 15, 2007

R. Allan Brett  
Registration No. 40,476

Customer No. 07380

Tel. No. (613) 232-2486

CC:

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UNITED STATES DEPARTMENT OF COMMERCE  
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OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231

JUNE 13, 2001

PTAS



\*101660357A\*

COBRIN & GITTES  
LAWRENCE E. RUSS  
750 LEXINGTON AVE  
NEW YORK, NY 10022

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PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE,  
ASSIGNMENT DIVISION, BOX ASSIGNMENTS, CG-4, 1213 JEFFERSON DAVIS HWY,  
SUITE 320, WASHINGTON, D.C. 20231.

RECORDATION DATE: 03/28/2001

REEL/FRAME: 011654/0130  
NUMBER OF PAGES: 4

BRIEF: ASSIGNMENT OF ASSIGNEE'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNEE:  
MA, JIANGLEI

DOC DATE: 03/26/2001

ASSIGNEE:  
TONG, WEN

DOC DATE: 03/24/2001

ASSIGNEE:  
WU, SHIQUAN

DOC DATE: 03/23/2001

ASSIGNEE:  
NORTEL NETWORKS LIMITED  
380 ST. ANTOINE STREET WEST  
WORLD TRADE CENTER OF MONTREAL,  
8TH FLOOR  
MONTREAL, QUEBEC H2Y 3Y4, CANADA

SERIAL NUMBER: 09819957  
PATENT NUMBER:

FILING DATE:  
ISSUE DATE:

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P.13/20

011654/0130 PAGE 2

JEEVON JONES, EXAMINER  
ASSIGNMENT DIVISION  
OFFICE OF PUBLIC RECORDS

Patent/Docket No. NTL-3.2.145/3519 (12818ROUS02U)

### ASSIGNMENT

**WHEREAS**, the undersigned inventor, hereinafter called the "Assignor", has invented a new and useful invention entitled:

**PREAMBLE DESIGN FOR MULTIPLE INPUT-MULTIPLE OUTPUT (MIMO),  
ORTHOGONAL FREQUENCY DIVISION MULTIPLEXING (OFDM) SYSTEM**

For which reference a full description is here made in an application for Letters Patent of the United States filed on December 29, 2000 as United States Application No. 09/751,879.

**WHEREAS, NORTEL NETWORKS LIMITED**, a Canadian company having a principal office and place of business at, World Trade Center of Montreal, 380 St. Antoine Street West, 8<sup>th</sup> floor, Montreal, Quebec H2Y 3Y4, Canada hereinafter called the "Assignee", is desirous of acquiring the entire right, title and interest in and to said invention, the application above identified, and in, to and under Letters Patent which may be obtained for said invention, as hereinafter more fully set forth;

**NOW, THEREFORE, TO ALL WHOM IT MAY CONCERN**, for a valuable consideration, receipt whereof is hereby acknowledged, I, the above named, hereby acknowledge my prior existing obligation and hereby sell, assign, and transfer to Assignee its successors and assigns, the entire right, title, and interest in the application and invention therein disclosed for the United States and foreign countries, to and under the said improvements, and the said application and all provisional, divisional, substitution, continuation applications thereof, and all Letters Patent of the United States which may be granted thereof and all renewals, reissues and extensions thereof, and all rights of priority under International Conventions and applications for Letters Patent which may hereafter be filed for said improvements in any country or countries foreign to the United States, and all Letters Patent which may be granted for said improvements in any country or countries foreign to the United States and all renewals, reissues and extensions thereof; and we request the Commissioner of Patents to issue any Letters Patent granted upon the invention set forth in the application to the Assignee, its successors and assigns; and we hereby agree that the Assignee may apply for foreign Letters Patent on the invention and we will execute all papers necessary in connection with the United States and foreign applications when called upon to do so by the Assignee.

**FURTHER**, the Assignor does hereby covenant and agree, for himself and his legal representatives, that they will assist the Assignee in the prosecution of the application herein identified; in the making and prosecution of any other applications for Letters Patent that the Assignee may elect to make covering the invention herein identified, as herein before set forth, including any application for reissue, application for

reexamination, application for foreign patent rights, or any proceeding in the United States Patent and Trademark Office affecting the invention, investing in the Assignee exclusive title in and to all such other applications and Letters Patent; and in the prosecution of any interference which may arise involving said invention, or any application or Letters Patents herein contemplated; that they will promptly execute and deliver to the Assignee any and all additional papers and make all lawful oaths which may be requested by the Assignee to fully carry out the terms of this assignment; and further that they will communicate to Assignee, or to its successors, assigns, and legal representatives, any facts known respecting said invention, and at the expense of the Assignee, testify in any legal proceedings, and generally do everything possible to aid the Assignee, its successors, assigns and nominees to obtain and enforce proper patent protection for said invention in all countries.

And the Commissioner of Patents and Trademarks is hereby authorized and requested to issue all Letters Patent to the Assignee in accordance with the terms of the assignment.

IN TESTIMONY WHEREOF, the Assignor has hereunto set his hands on the date indicated below.

Dated: Mar. 26, 2001

Jianglei Ma  
Inventor Signature

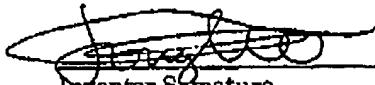
Inventor Name: JIANGLEI MA  
Residence Address: 2-2082 Westbury Road  
Ottawa, Ontario K2C 1G8, Canada

Dated: March 26, 2001

L. C. S. H. F → Weirung L.  
Witness Signature

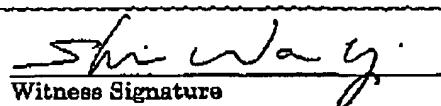
Witness Name: 51 Paula Cre. Nepean  
Residence Address: K2H 3Y8, Canada

Dated: March 24, 2001

  
Inventor Signature

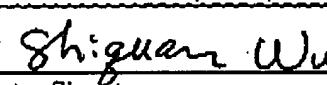
Inventor Name: WEN TONG  
Residence Address: #908-1000 Castle Hill Crest,  
Ottawa, Ontario, K2C 8L7, Canada

Dated: March 26, 2001

  
Witness Signature

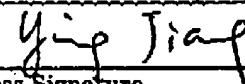
Witness Name: WAN YI SHIU  
Residence Address: 32 DEERCHASE CRT.,  
KANATA, ONTARIO  
K2M 2R1

Dated: March 23, 2001

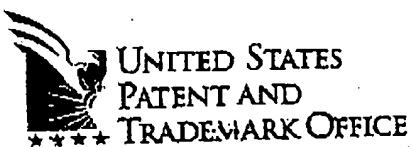
  
Inventor Signature

Inventor Name: SHIQUAN WU  
Residence Address: 108-C Craig Henry Dr.  
Nepean, Ontario K2G 6L8, Canada

Dated: March 23, 2001

  
Witness Signature

Witness Name: Ying Jiang  
Residence Address:  
108-C Craig Henry Dr.  
Nepean Ontario K2G 6L8, Canada



JUNE 07, 2002

PTAS

SMART & BIGGAR  
R. ALLAN BRETT  
900-55 METCALFE STREET  
OTTAWA, ONTARIO CANADA K1P 5Y6

71493-1244  
Chief Information Officer  
Washington, DC 20231  
[www.uspto.gov](http://www.uspto.gov)



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RECORDATION DATE: 04/05/2002

REEL/FRAME: 012773/0956  
NUMBER OF PAGES: 2

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).

ASSIGNOR:  
MA, JIANGLEI

DOC DATE: 03/07/2002

ASSIGNOR:  
JIA, MING

DOC DATE: 03/07/2002

ASSIGNOR:  
ZHU, PEIYING

DOC DATE: 03/07/2002

ASSIGNOR:  
TONG, WEN

DOC DATE: 03/07/2002

ASSIGNEE:  
NORTEL NETWORKS LIMITED  
2351 BOULEVARD ALFRED-NOBEL  
ST. LAURENT, QUEBEC, CANADA H4S 2A9SERIAL NUMBER: 10038915  
PATENT NUMBER:FILING DATE: 01/08/2002  
ISSUE DATE:

PLA

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SAUNDRA BALLENGER, EXAMINER  
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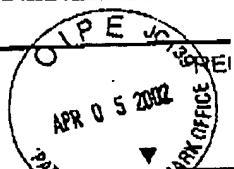
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Patent and Trademark Office

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(Rev. 03-01)  
OMB No. 0651-0027 (exp. 6/31/2002)  
POSA/REV03



06-07-2002



102112113

To the Honorable Commissioner of Patents and Trademarks, please know we attached original documents or copy thereof.

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1. Name of conveying party(ies):

JIANGLEI MA; MING JIA; PEIYING ZHU and  
WEN TONG

4.5.02

Yes  No

3. Nature of conveyance:

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|--|---|
| <input checked="" type="checkbox"/> Assignment | <input type="checkbox"/> Merger         |
| <input type="checkbox"/> Security Agreement    | <input type="checkbox"/> Change of Name |
| <input type="checkbox"/> Other _____           |   |

Execution Date: March 7, 2002

2. Name and address of receiving party(ies):

Name: NORTEL NETWORKS LIMITED

Address: 2351 Boulevard Alfred-Nobel

City: St. Laurent State/Prov.: Quebec

Country: Canada ZIP: H4S 2A9

Additional name(s) & address(es)  Yes  No

4. Application number(s) or patent numbers(s):

If this document is being filed together with a new application, the execution date of the application is: \_\_\_\_\_

Patent Application No.

Filing date

B. Patent No.(s)

10/038,915

01/08/02

04/10/2002 TD1021 00000109 10038915

01 FC:581

40.00 US

Additional numbers

Yes  No

5. Name and address of party to whom correspondence concerning document should be mailed:

Name: R. Allan Brett

Registration No. 40476

Address: SMART & BIGGAR

P.O. Box 2999, Station D

900-55 Metcalfe Street

City: Ottawa

State/Prov.: Ontario

Country: Canada

ZIP: K1P 5Y6

6. Total number of applications and patents involved: 1

7. Total fee (37 CFR 3.41): ..... \$ 40.00

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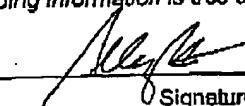
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R. Allan Brett (Reg. No. 40476)

Name of Person Signing

  
Signature

April 4, 2002

Date

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Washington, D.C. 20231

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NORTEL NETWORKS LIMITED**

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**NORTEL NETWORKS LIMITED**

whose address is:

2351 Boulevard Alfred-Nobel  
St. Laurent, Quebec, Canada H4SA 2A9

its successors, assigns and legal representatives, the entire right, title and interest, including priority rights, for all countries, in and to certain inventions relating to:

**SYSTEM ACCESS AND SYNCHRONIZATION METHODS FOR  
MIMO OFDM COMMUNICATIONS SYSTEMS AND PHYSICAL LAYER  
PACKET AND PREAMBLE DESIGN**

set forth in an application for letters patent of the UNITED STATES OF AMERICA

Serial No. 10/038,915 filed on January 8, 2002

and all rights and privileges under any and all letters patent that may be granted for said inventions.

Jia Ming  
Witness' Signature

MING JIA

Witness' Name (print)

Jianglei Ma Date: March 7, 2002

Assignor

Jianglei Ma  
3 Bon Echo Cres.  
Kanata, Ontario, Canada K2M 2W5

Jingyu Chen  
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Peiying Zhu

Witness' Name (print)

Jia Ming Date: March 7, 2002

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Jia Ming  
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MING JIA

Witness' Name (print)

Jingyu Chen Date: March 7, 2002

Assignor

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Kanata, Ontario, Canada K2M 2L4

Gregory C. Carter  
Witness' Signature

GREGORY C. CARTER

Witness' Name (print)

Wen Tong Date: March 7, 2002

Assignor

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Ottawa, Ontario, Canada K2C 4A7